



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/731,176

12/09/2003

Paul J. Sidenblad

NVDA P000859

4860

26291

7590

12/07/2006

PATTERSON & SHERIDAN L.L.P.
595 SHREWSBURY AVE, STE 100
FIRST FLOOR
SHREWSBURY, NJ 07702

EXAMINER

RIZK, SAMIR WADIE

ART UNIT

PAPER NUMBER

2133

DATE MAILED: 12/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/731,176

Applicant(s)

SIDENBLAD ET AL.

Examiner

Sam Rizk

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/16/2004, 2/28/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTIONS

- Claims 1-25 have been submitted for examination
- Claims 1-25 have been rejected

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claim 1-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Aviani et al. US patent 6,976,085 (Hereinafter Aviani)
2. In regard to claim 1, Aviani teaches:
 - A method of editing outbound frames using an offload unit, comprising:
(Note: FIG 1 and col. 17, lines (48-67) through col. 18, lines (1-54) in Aviani)
 - receiving a delegated connection table index;
(Note: FIG. 5, reference character (302) in Aviani)
 - receiving a prototype header and data for transmission from a TCP stack;
(Note: FIG. 5, reference character (300) and col. 2, lines (8-20) in Aviani)

- accessing a delegated connection table entry using the delegated connection table index;

(Note: FIG. 5, reference characters (304) & (305) in Aviani)

- computing a TCP checksum based on a portion of the data for transmission; and

(Note: FIG. 5, reference character (307) in Aviani)

- outputting a frame including the TCP checksum, and the portion of the data for transmission.

(Note: FIG. 5, reference character (308) in Aviani)

3. In regard to claim 2, Aviani teaches:

- The method of claim 1, further comprising updating the delegated connection table entry.

(Note: FIG. 5, reference character (303) in Aviani)

4. In reference to claim 3, Aviani teaches:

- The method of claim 1, wherein the frame includes a received data acknowledgement number.

(Note: FIG. 1, reference character (162-1) in Aviani)

5. In regard to claim 4, Aviani teaches:

- The method of claim 3, wherein the received data acknowledgement number is obtained from the delegated connection table entry.

(Note: FIG. 1, reference character (187) in Aviani)

6. In regard to claim 5, Aviani teaches:

- The method of claim 3, wherein the received data acknowledgement number is updated when a data is received from the destination.

(Note: FIG. 1, reference characters (162-1) & (162-1) in Aviani)

7. In regard to claim 6, Aviani teaches:

- The method of claim 1, wherein the frame includes a TCP timestamp.

(Note: col. 3, lines (4-33) in Aviani)

8. In regard to claim 7, Aviani teaches:

- The method of claim 6, wherein the timestamp is read from the delegated connection table entry.

(Note: FIG. 3, reference characters (144) and (187) in Aviani)

9. In regard to claim 8, Aviani teaches;

- The method of claim 6, wherein the TCP timestamp is updated when data is received from the destination.

(Note: FIG. 3, reference characters (144) and (187) in Aviani)

10. In regard to claim 9, Aviani teaches:

- The method of claim 1, further comprising computing an IPv4 header checksum when a delegated connection is an IPv4-based connection.

(Note: col. 1, lines (7-25) in Aviani)

11. In regard to claim 10, Aviani teaches:

- The method of claim 1, further comprising:
 - accessing the connection table entry;

(Note: FIG. 3, reference character (187) in Aviani)

Art Unit: 2133

- computing a TCP checksum based on another portion of the data for transmission; and

(Note: FIG. 5, reference character (307) in Aviani)

- outputting an additional frame including the TCP checksum and the other portion of the data for transmission.

(Note: FIG. 5, reference character (308) in Aviani)

12. In regard to claim 11, Aviani teaches:

- The method of claim 1, wherein the application program requests notification when a destination has acknowledged receipt of a specific sequence number.

(Note: Any of Reference characters (151-1)-((155-1) in FIG 4 in Aviani)

13. In regard to claim 12, Aviani teaches:

- The method of claim 1, further comprising piggybacking an acknowledgement in the frame.

(Note: Any of Reference characters (151-1)-((155-1) in FIG 4 in Aviani)

14. In regard to claim 13, Aviani teaches;

- A method of producing receive data acknowledgements for output to a destination using an offload unit, comprising:

(Note: FIG. 5 in Aviani)

- receiving a TCP frame from a destination connection;

(Note: FIG. 5, reference character (300) in Aviani)

Art Unit: 2133

- determining the destination connection is a connection delegated for processing by the offload unit;

(Note: FIG. 3, reference character (142) in Aviani)

- determining a sequence number in the TCP frame is consecutive relative to a sequence number stored in a delegated connection table; and updating the sequence number stored in the delegated connection table.

(Note: FIG. 4, reference characters (190)-(194) in Aviani)

15. In regard to claim 14, Aviani teaches:

- The method of claim 13, further comprising:
- determining the received sequence number is greater than a threshold; and
- transmitting a receive data acknowledgement to the destination.

(Note: FIG. 5, reference character (308) in Aviani)

16. In regard to claim 15, Aviani teaches:

- The method of claim 13, further comprising: determining a timer has expired; and
- transmitting a receive data acknowledgement to the destination.

(Note: col. 3, lines (4-33) in Aviani)

17. In regard to claim 16, Aviani teaches:

- The method of claim 13, further comprising:

- determining a count of unacknowledged received frames is greater than a limit; and
- transmitting a receive data acknowledgement to the destination.

(Note: FIG. 4, reference characters (190)-(194) in Aviani)

18. Claim 17 is rejected for the same reasons as per claim 13.

19. In regard to claim 18, Aviani teaches:

- The method of claim 17, further comprising:
- outputting a notification to the application program responsive to the notification flag value; and
- updating at least a portion of the connection state data.

(Note: FIG. 3, reference character (187) in Aviani)

20. Claims 19 and 24 are rejected for the same reasons as per claim 15.

21. Claim 20 is rejected for the same reasons as per claim 16.

22. Claim 21 is rejected for the same reasons as per claim 14.

23. Claim 22 is rejected for the same reasons as per claim 1.

24. Claim 23 is rejected for the same reasons as per claim 13.

25. Claim 24 is rejected for the same reasons as per claim 3.

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Williams US publication no. 2004/0190516 teaches direct data placement.

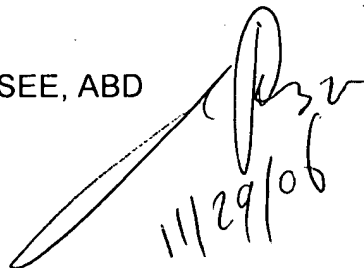
- Sen et al. US patent no. 6765909 teaches method and apparatus for providing support for multiple QoS levels within a third generation packet data session.
- Elzur et al. US publication 2004/0042483 teaches system and method for TCP offload.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Rizk whose telephone number is (571) 272-8191. The examiner can normally be reached on M-F 8-5.

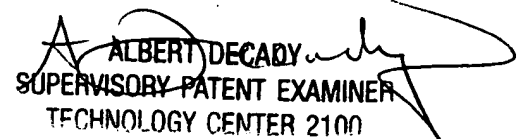
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronics Business Center (EBC) at 866-217-9197 (toll-free)

Sam Rizk, MSEE, ABD
Examiner



11/29/06



ALBERT DECADY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100